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IAP01 Rec'd PCT/PTO 26 SEP 2006

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q96923

Jun-ichi TAMURA, et al

Appln. No.: National Stage of PCT/JP2005/006439

Confirmation No.: Unknown

Group Art Unit: Unknown

Filed: September 26, 2006

Examiner: Unknown

For: PREPARATION PROCESS OF OLIGOGLYCOSAMINOGLYCAN, AND REDUCING  
END GLUCURONIC ACID TYPE OLIGOCHONDROITIN SULFATE AND  
PHARMACEUTICAL COMPOSITION COMPRISING THE SAME

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. §§ 1.97 and 1.98**

**MAIL STOP AMENDMENT**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the duty of disclosure under 37 C.F.R. § 1.56, Applicant hereby notifies the U.S. Patent and Trademark Office of the documents which are listed on the attached PTO/SB/08 A & B (modified) form and/or listed herein and which the Examiner may deem material to patentability of the claims of the above-identified application.

One copy of each of the listed documents is submitted herewith, except for the following: U.S. patents and/or U.S. patent publications; and co-pending non-provisional U.S. applications filed after June 30, 2003.

The present Information Disclosure Statement is being filed: (1) No later than three months from the application's filing date; (2) Before the mailing date of the first Office Action

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on the merits (whichever is later); or (3) Before the mailing date of the first Office Action after filing a request for continued examination (RCE) under §1.114, and therefore, no Statement under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant encloses herewith a copy of a Communication from a foreign patent office in a counterpart application citing such documents (International Search Report for PCT/JP2005/006439 dated June 27, 2005), together with an English-language version (if not already included) of at least that portion of the Communication indicating the degree of relevance found by the foreign patent office.

In compliance with the concise explanation requirement under 37 C.F.R. § 1.98(a)(3) for foreign language documents, Applicant submits the following explanations: English language abstracts, submitted herewith, constitute concise statements of relevance for Japanese Patent Application Publication Nos. 2003-512807, 5-178876, and 5-58716, also for FR 2 521 566 and WO 96/16973.

The submission of the listed documents is not intended as an admission that any such document constitutes prior art against the claims of the present application. Applicant does not waive any right to take any action that would be appropriate to antedate or otherwise remove any listed document as a competent reference against the claims of the present application.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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WASHINGTON OFFICE  
**23373**  
CUSTOMER NUMBER

Date: September 26, 2006

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MODIFIED PCT/USB/08 A &amp; B (08-03)

Substitute for Form 1449 A & B/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> <i>(use as many sheets as necessary)</i>				<i>Complete if Known</i>	
				Application Number	National Stage of PCT/JP2005/006439
				Confirmation Number	Unknown
				Filing Date	September 26, 2006
				First Named Inventor	Jun-ichi TAMURA
				Art Unit	Unknown
				Examiner Name	
Sheet	1	of	2	Attorney Docket Number	Q96923

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code <sup>2</sup> (if known)		
		US 4,943,630	A	07/24/1990	JEAN-CLAUDE JACQUINET, ET AL
		US 6,486,137	B1	11/26/2002	MONS LUNDQVIST, ET AL
		US			
		US			

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Translation <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)			
		FR	2 521 566	A	08/19/1983	CHOAY SA	Patent Abstract of EP 0 084 999
		JP	2003-512807	A	04/02/2003	DERMATAN PRODUCTS LIMITED (US)	Patent Abstract of WO 98/34959
		WO	96/16973	A1	06/06/1996	SEIKAGAKU KOGYO CO. LTD (JP), MARUYAMA HIROSHI (JP), MORIKAWA KIYOSHI (JP), TAWADA AKIRA (JP), MIYAUCHI SATOSHI (JP), YOSHIDA KEIICHI (JP), and ASARI AKIRA (JP)	Abstract
		JP	5-178876	A	07/20/1993	MOCHIDA PHARM. CO. LTD.	Abstract
		JP	5-58716	B2	08/27/1993	TAIYO FISHERY CO. LTD.	Abstract

NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city, and/or country where published.				Translation <sup>6</sup>
		FRÉDERIC BELOT, ET AL, "SYNTHESSES OF CHONDROITIN 4- AND 6-SULFATE PENTASACCHARIDE DERIVATIVES HAVING A METHYL β-D-GLUCOPYRANOSIDURONIC ACID AT THE REDUCING END", CARBOHYDRATE RESEARCH, VOL. 326, NO. 2, June 2000, PAGES 88-97, XP004200118, ISSN: 0008-6215				

<b>Examiner Signature</b>		<b>Date Considered</b>
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov), MPEP 901.04 or follow the hyperlink from the title of the document to the intranet. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST. 3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to indicate here if English language Translation is attached.

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MODIFIED PTO GENAIA & B (08-03)

<b>Substitute for Form 1449 A &amp; B/PTO</b>				<i>Complete if Known</i>	
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				Confirmation Number	Unknown
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				First Named Inventor	Jun-ichi TAMURA
				Art Unit	Unknown
				Examiner Name	
Sheet	2	of	2	Attorney Docket Number	
				Q96923	

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Examiner Initials*	Cite No. <sup>1</sup>	Document Number		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
		Number	Kind Code <sup>2</sup> (if known)		
		US			
		US			

FOREIGN PATENT DOCUMENTS							
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		CRAIG A. HENKE, ET AL, "CD44-RELATED CHONDROITIN SULFATE PROTEOLYCAN, A CELL SURFACE RECEPTOR IMPLICATED WITH TUMOR CELL INVASION, MEDIATES ENDOTHELIAL CELL MIGRATION ON FIBRINOGEN AND INVASION INTO A FIBRIN MATRIX", JOURNAL OF CLINICAL INVESTIGATION, VOL. 97, NO. 11, June 1996, PAGES 2541-2552, XP001002665, ISSN: 0021-9738				
		KATALIN MIKECZ, ET AL, "MODULATION OF HYALURONAN RECEPTOR (CD44) FUNCTION IN VIVO IN A MURINE MODEL OF RHEUMATOID ARTHRITIS" ARTHRITIS & RHEUMATISM, VOL. 42, No. 4, April 1999, PAGES 659-668				
		HIROTO KAWASHIMA, ET AL, "OVERSULFATED CHONDROITIN/DERMATAN SULFATES CONTAINING GlcAβ1/IdoAc1-3GalNAc(4,6-O-DISULFATE) INTERACT WITH L- AND P- SELECTION AND CHEMOKINES", THE JOURNAL OF BIOLOGICAL CHEMISTRY, VOL. 277, NO. 15, April 12, 2002, PAGES 12921-12930				
		KAZUKI N. SUGAHARA, ET AL, "HYALURONAN OLIGOSACCHARIDES INDUCE CD44 CLEAVAGE AND PROMOTE CELL MIGRATION IN CD44-EXPRESSING TUMOR CELLS", THE JOURNAL OF BIOLOGICAL CHEMISTRY, VOL. 278, NO. 34, AUGUST 22, 2003, PAGES 32259-32265				
		JUN-ICHI TAMURA, ET AL, "SYNTHETIC APPROACH TOWARDS SULFATED CHONDROITIN DI-, TRI- AND TETRASACCHARIDES CORRESPONDING TO THE REPEATING UNIT", CARBOHYDRATE RESEARCH, VOL. 305, 1998, PAGES 43-63				
		JUN-ICHI TAMURA, ET AL, "A REGIO- AND STEREOSELECTIVE SYNTHESIS OF 4-O-SULFATED CHONDROITIN DI- AND TETRASACCHARIDES BASED ON THE STRATEGY DESIGNED FOR THE ELONGATION OF THE REPEATING UNIT", BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, VOL. 5, NO. 13, 1995, PAGES 1351-1354				

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